OnCell G3110/3150-HSDPA

Industrial tri-band UMTS/HSDPA IP gateways

OnCell G3110-HSDPA

OnCell G3150-HSDPA

- Universal tri-band UMTS/HSDPA 850/1900/2100 MHz
- Bring 10/100Base-T and serial devices together
- Choice of operation modes, including TCP Server, TCP Client, UDP, Real COM, Reverse Real COM, and RFC2217
- Secure modes for TCP Server, TCP Client, Real COM, and Reverse Real COM
- Redundant DC power inputs
- Two digital inputs and 1 relay output
- DIN-Rail

Overview

The OnCell G3100-HSDPA series of high-speed industrial-grade IP gateways are intelligent and fully-featured wireless communication platforms that connect your legacy serial devices over a cellular TCP/IP network. The OnCell G3100-HSDPA series offers connectivity to all tri HSDPA/UMTS frequency bands, as well as all quad GSM/GPRS/EDGE frequency bands (850/900/1800/1900 MHz), used in Europe and the United States, allowing seamless global roaming on the best available network. The OnCell G3100-HSDPA offers versatile operation modes such as Reverse Real COM mode for cellular network structures (to handle the IP address issue), which automatically generates a virtual COM port to match serial ports, allowing you to communicate with remote serial devices. The OnCell G3100-HSDPA also comes with a built-in relay output that can be configured to indicate the priority of events when notifying or warning engineers in the field. Two digital inputs also allow you to connect basic I/O devices, and the OnCell G3100-HSDPA comes with redundant power inputs to assure non-stop operation.

Specifications

Cellular Interface

Standards: UMTS/HSDPA

Band Options:
• Tri-band UMTS/HSDPA 850/1900/2100 MHz
• Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz

EDGE Multi-slot Class: Class 10

EDGE Terminal Device Class: Class B

GPRS Multi-slot Class: Class 10

GPRS Terminal Device Class: Class B

GPRS Coding Schemes: CS1 to CS4

Tx Power:
GSM900: 2 W
UMTS/HSDPA: 0.25 W
EDGE900: 0.5 W
EDGE1800: 0.4 W
GSM1800: 1 W

LAN Interface

Number of Ports: 1

Ethernet: 10/100 Mbps, RJ45 connector, Auto MDI/MDIX

Magnetic Isolation Protection: 1.5 KV built-in

SIM Interface

Number of SIMs: 1

SIM Control: 3 V

Serial Interface

Number of Ports: 1

Serial Standards:
G3110: RS-232 (DB9 male connector)
G3150: RS-232 (DB9 male connector), RS-422/485 (5-pin terminal block connector)

ESD Protection: 15 KV

Power EFT/Surge Protection: 2 KV

Serial Communication Parameters

Data Bits: 5, 6, 7, 8

Stop Bits: 1, 1.5, 2 (when parity = None)

Parity: None, Even, Odd, Space, Mark

Flow Control: RTS/CTS, XON/XOFF

Baudrate: 50 bps to 921.6 Kbps

Serial Signals

RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

RS-422: Tx+, Tx-, Rx+, Rx-, GND

RS-485-4w: Tx+, Tx-, Rx+, Rx-, GND

RS-485-2w: Data+, Data-, GND

I/O Interface

Alarm Contact: 1 relay output with current carrying capacity of 1A @ 24 VDC

Digital Inputs: 2 electrically isolated inputs
• +13 to +30 V for state “1” (On)
• +3 to -30 V for state “0” (Off)

Software

Network Protocols: ICMP, TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, HTTP, SMTP, HTTPS, SNTP, ARP, SSL

Router/Firewall: NAT, port forwarding

Authentication: Local user-name and password

Security: Accessible IP list

Operation Modes: Real COM, Secure Real COM, TCP Server, Secure TCP Server, TCP Client, Secure TCP Client, UDP, RFC2217, Ethernet Modem, Virtual Modem, SMS Tunnel

Configuration and Management Options: SNMP MIB-II, SNMP Private MIB, SNMPv1/v2c/v3, DDNS, IP Report, Web/Telnet/Serial-Console/SSH

Utilities: Provided for Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server-2008, Windows XP/2003/Vista/Server-2008 x64 Edition

Windows Real COM Drivers: Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server 2008, Windows XP/2003/Vista/Server 2008 x64 Edition

Fixed TTY Drivers: SCO Unix, SCO OpenServer 5, SCO OpenServer 6, UnixWare 7, SVR4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD 5, FreeBSD 6

Linux Real TTY Drivers: Linux kernels 2.2.x, 2.4.x, 2.6.x

Physical Characteristics

Housing: Aluminum, providing IP30 protection

Weight: 440±5 g

Dimensions: 28 x 126 x 93 mm (1.10 x 4.96 x 3.66 in)

Environmental Limits

Operating Temperature: -30 to 55°C (-22 to 131°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -40 to 75°C (-40 to 167°F)

Power Requirements

Number of Power Inputs: 2 (terminal block)

Input Voltage: 12 to 48 VDC

Data Link: 335 to 1185 mA (peak) @ 12 V

Regulatory Approvals

Safety:
UL: UL60950

RF:
FCC Part22H
FCC PART24E
EN301 489-1
EN301 489-7
EN301 511

EMC:
CE: EN55022 Class A / EN55024
FCC: FCC part 15 subpart B, Class A
EN61000-4-2 (ESD) Level 4
EN61000-4-3 (RS) Level 3
EN61000-4-4 (EFT) Level 4
EN61000-4-5 (Surge) Level 3
EN61000-4-8 Level 3
EN61000-4-12 Level 3

Reliability

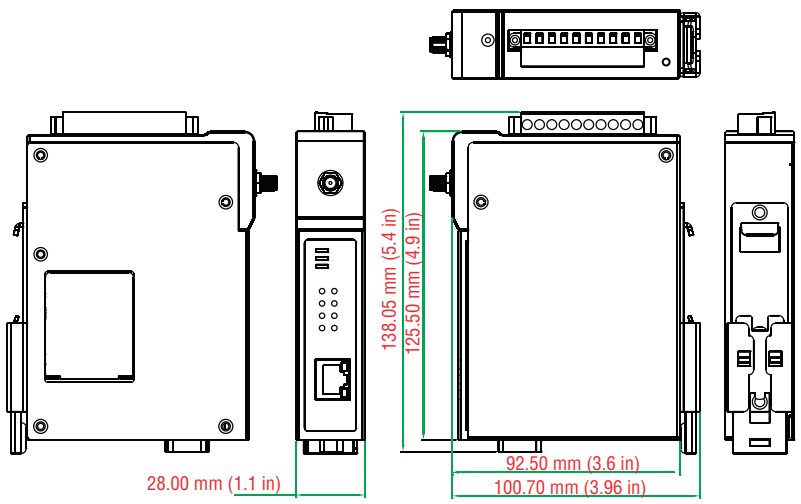
MTBF (meantime between failures): 380,459 hours (G3110-HSDPA/G3150-HSDPA)

Warranty

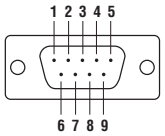
Warranty Period: 5 years

Details: See www.moxa.com/warranty

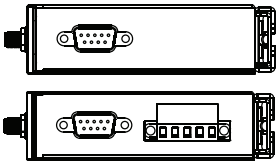
Dimensions & Pin Assignment



DB9 male connector



PIN	RS-232	RS-422/485-4w	RS-485-2w
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–
9	–	–	–



OnCell G3110-HSDPA

OnCell G3150-HSDPA

Ordering Information

Available Models

OnCell G3110-HSDPA: 1-port RS-232 to UMTS/HSDPA IP gateway

OnCell G3150-HSDPA: 1-port RS-232/422/485 to UMTS/HSDPA IP gateway

Optional Accessories (can be purchased separately)

DC Power Supply: See Appendix A

Power Jack to Terminal Block Cable: See Appendix A

ANT-WCDMA-ASM-1.5: Omni 1.5dBi/10cm, magnetic SMA tri-band antenna (impedance = 50 ohms)

ANT-WCDMA-AHSM-04-2.5m: Omni 4dBi/11cm, magnetic SMA tri-band antenna, 2.5 m (impedance = 50 ohms)

Package Checklist

- OnCell IP Gateway
- Rubber SMA antenna
- DIN-Rail Kit
- 5-pin Terminal Block (screw type)
- 10-pin Terminal Block (screw type)
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card